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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,048	01/19/2001	Frank Carr	41601/PBH/B600	1888
7:	590 02/13/2002			
Sterne Kessler Goldstein & Fox P L L C 1100 New York Ave N W Suite 600 Washington, DC 20005-3934			EXAMINER	
			HARVEY, DAVID E	
			ART UNIT	PAPER NUMBER
			2614	
			DATE MAILED: 02/13/2002	

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No. 09/766,048 Applicant(s)

Carr et al.

Examiner

David F Harvey

Art Unit

	David E. Harvey	
- The MAILING DATE of this communication appears	on the cover sheet with the corre	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SETHE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a replied be considered timely.  - If NO period for reply is specified above, the maximum statutory period communication.  - Failure to reply within the set or extended period for reply will, by statute - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  Status  1) Responsive to communication(s) filed on May 1, 20  2a) Responsive to reply and the section is in condition for allowance expected.	T TO EXPIRE 3 MON  36 (a). In no event, however, may a reply by within the statutory minimum of thirty (3) will apply and will expire SIX (6) MONTH by, cause the application to become ABANI g date of this communication, even if time  1001  on is non-final.  accept for formal matters, prosecutions.	NTH(S) FROM  y be timely filed  30) days will  S from the mailing date of this  DONED (35 U.S.C. § 133).  ely filed, may reduce any
closed in accordance with the practice under Ex pa Disposition of Claims	лге Quayw <del>a</del> 35 С.D. 11; 453 О.G. 2	213.
4) 🔀 Claim(s) <u>1-3</u>		is/are pending in the applica
4a) Of the above, claim(s)		
5) Claim(s)		
6) 🗓 Claim(s) <u>1-3</u>		
7)		
8) Claims		
Application Papers  9) ☐ The specification is objected to by the Examiner.  10) ☐ The drawing(s) filed on is/a  11) ☐ The proposed drawing correction filed on  12) ☐ The oath or declaration is objected to by the Examine	is: a 🔲 approved	b)⊡disapproved.
Priority under 35 U.S.C. § 119  13) Acknowledgement is made of a claim for foreign prio  a) All b) Some* c) None of:  1. Certified copies of the priority documents have to certified copies of the priority documents have to copies of the certified copies of the priority documents have to copies of the certified copies of the priority documents have to copies of th	been received. been received in Application No uments have been received in this (PCT Rule 17.2(a)). certified copies not received.	<del></del>
Attachment(s)		
15) X Notice of References Cited (PTO-892)	18) Interview Summary (PTO-413) Paper N	io(s).
16) Notice of Draftsperson's Patent Drawing Review (PTO-948)	19) Notice of Informal Patent Application (F	
17) 🕅 Information Disclosure Statement(s) (PTO-1449) Paper No(s)2,4,5	20) Other:	

2) a first mixer (20);

3) a first BPF (28);

- 4) a second local oscillator (35);
- 5) a second mixer (32);
- 6) circuitry for producing a tuning control signal (50); and
- 7) demodulating circuitry (42, 45).

Ash indicates that all of the elements in figure 1 which are outlined by the dashed line "69" were fabricated on a single IC Chip [see lines 15-24 of column 8].

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barber et al. [US Patent #6,101,371] in view of Ash [US Patent #4,408,347].
  - 1) As is shown in figure 14, Barber et al. described a "prior art" receiver (802) which comprised: a first mixer (820); a first "variable" local oscillator (818); a first BPF (822); a second mixer (832); a second "fixed" local oscillator; a second band pass filter (834); and a demodulator (838). As is shown in figure 15, Barber et al. indicated that it was

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conventional to have implemented all but the few discrete filtering (904, 910,912) and oscillating (908) components of the "prior art' receiver on a single CMOS IC (906) [also, note the recitations of claim 18].

- 2) Barber et al. further evidences the fact that is was a widely recognized goal of those skilled in the art to have implemented all of the components of the "prior art' receiver on as few as a single CMOS IC (906) [note: lines 63-66 of column 15; lines 16-21 of column 1; etc,...). In fact, the invention actually disclosed by Barber et al. pertained to the CMOS implementation of the remaining discrete components of the "prior art receiver.
- 3) Ash disclosed a system as was set forth in paragraph 3 of this Office action. Ash at least showed that it was desirable/conventional to have implemented the local oscillators of a receiver on the "single IC" chip too.
- 4) In view of the showing of Ash discussed above, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the discrete local oscillators shown in figure figures 14 and 15 of Barber et al. within the single CMOS IC Chip (906).
- 7. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barber et al. [US Patent #6,101,371] in view of Ash [US Patent #4,408,347] for the same reasons that were set forth for claims 1 and 2 above.

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The examiner takes Officaial Notice that it was notoriously well known in the art to

have used differentially implemented circuitry within high frequency IC chip receivers so

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as to reduce noise. The examiner maintais that it would have been obvious to have used

such components with the receiver of Barber et al.

8. Any inquiry concerning this communication should be directed to **David E. Harvey** whose

telephone number is (703) 305-4365. The examiner can normally be reached Monday-Friday

between the hours of 9:30 AM and 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Mr. John W. Miller, can be reached at (703) 305-4795.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA. Sixth Floor (Receptionist).

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Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose number is (703) 306-0377.

DEH 2/02

DAVID E. HARVEY OPRIMARY EXAMINER